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Abanti B. Singla Esq.
Bartunek & Bhattacharyya Ltd
10420 Little Patuxent Parkway Suite 405
Columbia, MD 21044

EXAMINER

BELLAMY, TAMIKO D

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/081,649

Applicant(s)

DURON ET AL.

Examiner

Tamiko D. Bellamy

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2856

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 11-43 and 47-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-43 and 47-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 13a. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The words "power supply" are vague and unclear. The independent claims from which claims 22 and 58 are a dependent of contains a first and second power supply. It is unclear as to which power supply claims 22 and 58 are referring to.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 11-43, and 47-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over McEachern et al. (5,526,694) in view of Straser et al. (6,292,108).

With respect to claim 1, McEachern et al. discloses in Fig. 1, a single-axis accelerometer (1) that measures the resonant accelerations of a building structure (2) (col. 2, lines 55-57), an amplifier (3), a filter (4), and the output of the filter (4) is coupled to an A-D converter (5) to sample the waveform as it is input. McEachern et al. does not specifically disclose a power source connected to an accelerometer, and a transmitter that is coupled a filter and amplifier. Straser et al. discloses in fig. 3 a sensor unit (20) that includes a wireless transmitter (e.g., transceiver 24) and a power source (col. 9, lines 15-24). Therefore, to modify McEachern et al. by employing a power source and a transmitter would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having theses design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 2, 12, 26, 38, 48, and 62, McEachern et al. discloses the use of an accelerometer model QA-2000 (col. 2, lines 66-67). From the specifications of the model QA-2000 the accelerometer detects environmental vibrations from 20-2000Hz. McEachern et al. lacks the detail of accelerometer having a reading range of 0 to 30 Hz. Straser et al. discloses that the accelerometers include a spanning frequency range up to 30 Hz. (col. 21, lines 1-10). Therefore, to modify McEachern et al. by employing an accelerometer having a reading range of 0 to 30 Hz would have been obvious to one of

ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having these design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 3, 13, 27, 34, 39, 49, and 63, McEachern et al. discloses an accelerometer (1). McEachern et al. does not specifically disclose a power source connected to an accelerometer, and the power source incorporates internal batteries. However, Straser et al. discloses a power source in the form of batteries (col. 9, lines 22-23). Therefore, to modify McEachern et al. by employing a power source including batteries would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having these design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 4, 14, 28, 40, 50, and 64, McEachern et al. discloses the use of an accelerometer model QA-2000 (col. 2, lines 66-67). From the specifications of the model QA-2000 the accelerometer includes a stainless steel casing, and operates in an environment having a temperature range of -55 to 95 degrees Celsius. McEachern et al.

lacks the detail of a thermal external casing that is waterproof. However, the court held in In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. Therefore, to employ McEachern et al. on a thermal external casing that is waterproof would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a device for detecting structural damage of a building including an accelerometer including a casing.

With respect to claims 5, 15, 29, 41, 51, and 64, McEachern et al. discloses the use of an accelerometer model QA-2000 (col. 2, lines 66-67). From the specifications of the model QA-2000 the accelerometer includes a stainless steel casing. McEachern et al. lacks the detail of the casing having an on-off indicator. Straser et al. discloses in fig. 6, that the sensor unit (16) implements a LCD display that is equivalent to an on-off indicator. Therefore, to modify McEachern et al. by employing a casing having an on-off indicator would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having these design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 6, 16, 30, 40, and 66, McEachern et al. discloses the use of an accelerometer model QA-2000 (col. 2, lines 66-67). From the specifications of the

model QA-2000 the accelerometer includes a stainless steel casing. McEachern et al. lacks the detail of the casing having an on-off indicator consisting of a switch mechanism, audio signal indicator, or a visual signal indicator. Straser et al. discloses in fig. 6, that the sensor unit (16) implements a LCD display that is equivalent to a visual indicator. Therefore, to modify McEachern et al. by employing a casing having visual indicator would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having these design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 7, 17, 31, 43, 53, and 67, McEachern et al. discloses the accelerometer is firmly attached to a building structure (2) (col. 2, lines 49-50). McEachern et al. does not specifically disclose that the casing including an attachment means comprises adhesives and bolts. However, the court held in In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. Therefore, to employ McEachern et al. on an attachment means including adhesive and bolts would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches its use on a device for detecting structural

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damage of a building including an firmly attaches an accelerometer to the building structure.

With respect to claims 11, 25 and 61, as depicted in fig. 1, McEachern et al. discloses a display (7), and a processor (6) that are coupled to the accelerometer (1). Furthermore, McEachern et al. discloses a microprocessor 6 including a storage element (9), which may be a battery packed memory (col. 4, lines 1-3). The battery packed storage unit (9) is equivalent to a second power supply. The device of McEachern et al. the coupling of the display (1) to the accelerometer includes a supply line. McEachern et al. lacks the detail of the display unit including a remote receiver, and an analog to digital converter connected to the remote receiver. Straser et al. disclose a central data device (18) that is coupled to a display (36) and includes a wireless receiver. The receiver inherently includes an analog to digital converter. The device of Straser et al. Therefore, to modify McEachern et al. by employing a display with a remote receiver and a supply line would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having theses design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 18, and 54, McEachern et al. discloses in figs. 1 and display (7) is coupled to the accelerometer (1). The device of coupled by way of a supply line that inherently includes a thermal coating.

With respect to claims 19 and 55, McEachern et al. discloses in figs. 1 and display (7) is coupled to the accelerometer (1). McEachern et al. lacks the detail of a supply line using a wire connection that connects the transmitter and remote receiver. As depicted in fig. 6, Straser et al. discloses a wireless supply line connection between the sensor (16 which includes a transmitter, and the receiver (18). Although, Straser et al. uses a wireless connection as apposed to a wired connection, the court held in In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. Therefore, to modify McEachern et al. by employing supply line including a wired connection a would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having theses design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 20 and 56, McEachern et al. discloses a second power supply (e.g., storage unit 9). McEachern et al. lacks the detail of the supply line comprising a wired connection from the first power source to the second power source.

Straser et al. discloses the sensor unit (20) that includes a power source (col. 9, lines 15-24). As depicted in fig. 6, the device of Straser et al. discloses a wireless connection between the first power unit include in sensor unit (16) and the second power source included in central data device (36). Although, Straser et al. uses a wireless connection as apposed to a wired connection, the court held in In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. Therefore, to modify McEachern et al. by employing supply line including a wired connection a would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having theses design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 21 and 57, McEachern et al. discloses in figs. 1 a processor (6) coupled to a display (7) and a memory unit (9). The processor (6) McEachern et al. uses is inherently capable of being connected to a user input.

With respect to claims 22 and 58, McEachern et al. discloses a microprocessor (6) including a power supply (e.g., storage element 9), which may be a battery packed memory (col. 4, lines 1-3).

With respect to claims 23, 35, 59, and 71, McEachern et al. discloses a microprocessor (6) including a second power supply (e.g., storage element 9), which may be a battery packed memory (col. 4, lines 1-3). McEachern et al. lacks the detail of a first power source connected to a second power source. Straser et al. discloses in fig. 3 a sensor unit (20) that includes a first power source (col. 9, lines 15-24) and a central data device (36) that includes a second power supply. While, Straser et al. does not disclose the first power source connected to the second power source, the connection of the two power sources is a design consideration clearly within the preview of one having ordinary skill in the art. Therefore, to modify the combination of McEachern et al. and Straser et al. by employing a connection between a first and second power sources would have been obvious to one of ordinary skill in the art at the time of the invention since the combination of Straser et al. McEachern et al. and Straser et al. teaches a device for detecting structural damage of a building including a first and second power supply. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 24, 36, 60, 70, and 72, McEachern et al. a second power supply (e.g., storage element 9), which may be a battery packed memory (col. 4, lines 1-3).

With respect to claims 32 and 68, as depicted in fig. 1, an accelerometer (1) with wired communication. McEachern et al. lacks the detail of a wireless transmission

system. As depicted in fig. 6, Straser et al. a wireless transmission system. Therefore, to modify McEachern et al. by employing a wireless transmission system would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having theses design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer.

With respect to claims 33 and 69, McEachern et al. discloses in figs. 1 a processor (6) coupled to a display (7) and a memory unit (9). The processor (6) McEachern et al. uses is inherently capable of being connected to a user input.

With respect to claims 37 and 61, McEachern et al. discloses in Fig. 1, a single-axis accelerometer (1) that measures the resonant accelerations of a building structure (2) (col. 2, lines 55-57), an amplifier (3), a filter (4), and the output of the filter (4) is coupled to an A-D converter (5) to sample the waveform as it is input. McEachern et al. further discloses a processor (6). McEachern et al. does not specifically disclose a power source connected to an accelerometer, and a transmitter that is coupled a filter and amplifier, and an identifier connected to the processor. Straser et al. discloses in fig. 3 a sensor unit (20) that includes a wireless transmitter (e.g., transceiver 24), a processor (34) and identifier (e.g., acquisition circuitry 22) and a power source (col. 9, lines 15-24). Therefore, to modify McEachern et al. by employing a power source, a transmitter, and

an identifier would have been obvious to one of ordinary skill in the art at the time of the invention since Straser et al. teaches a device for detecting structural damage of a building having these design characteristics. The skilled artisan would be motivated to combine the teachings of McEachern et al. and Straser et al. since McEachern et al. states that his invention is applicable a device for detecting structural damage of a building including an accelerometer and Straser et al. is directed to a device for structural monitoring including the use of an accelerometer

With respect to claim 74, McEachern et al. discloses a single-axis accelerometer 1 that measures the resonant accelerations of a building structure 2 as it responds to wind 10 (col. 2, lines 55-57). McEachern et al. lacks the detail of monitoring acceleration responses during burn of the structure. Straser et al. discloses a device that monitors real-time structural condition assessment for extreme events, as well as long term deterioration information (col. 4, lines 44-47). However, a recitation with respect to the manner in which an apparatus is intended to be employed does not impose any structural limitation upon the claimed apparatus that differentiates it from a prior art reference disclosing the structural limitations of the claim. In re Pearson, 494 F.2d 1399, 181 USPQ 641 (CCPA 1974); In re Yanush, 477 F.2d 958, 177 USPQ 705 (CCPA 1973); In re Finsterwalder, 436 F.2d 1028, 168 USPQ 530 (CCPA 1971); In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F.2d 937, 136 USPQ 458 (CCPA 1963); Ex parte Masham, 2 USPQ2d 1647 (BdPatApp & Inter 1987). Therefore, it would have been obvious to one of ordinary skill in the art to provide McEachern et al. an

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accelerometer that monitors a burning structure, so that device has the capability to monitor and record multiple factors that cause damage to structure.

Response to Arguments

5. Applicant's arguments with respect to claims 1-7, 11-43, and 47-74 have been considered but are moot in view of the new ground(s) of rejection. It is the examiners position that claims 1-7, 11-43, and 47-74 are not patentable over the newly applied art of McEachern et al. in view of Straser et al.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (703) 305-4971. The examiner can normally be reached on Monday through Friday 10:00 AM to 7:30PM.

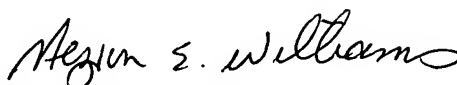
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Tamiko Bellamy

T-D.

October 2, 2003


HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800